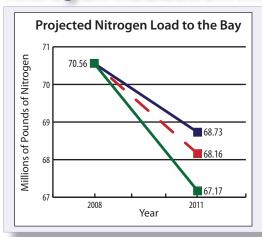




# **Nitrogen Reduction Milestone**



Virginia's 2011 milestone commitment is to reduce nitrogen by 3.39 million pounds over the three year period (2009-2011).

Reduction at Previous Rate of Progress

Pollution Load after Previous Rate of Progress

Reduction after Recent Nutrient Reduction Actions

Pollution Load after Recent Nutrient Reduction Actions

Reduction at Milestone Rate of Progress

Pollution Load after Milestone Rate of Progress

Reduction Load after Milestone Rate of Progress

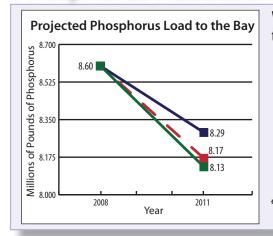
Pollution Load after Milestone Rate of Progress

Reduction Rate of Progress

86%

M = Millions of Pounds of Nitrogen

# **Phosphorus Reduction Milestone**



Virginia's 2011 milestone commitment is to reduce phosphorus by 470,000 pounds over the three year period (2009-2011).

Projected\*\*

Reduction at Previous Rate of Progress 308,953 lbs.

Pollution Load after Previous Rate of Progress 8.29M

Reduction after Recent Nutrient Reduction Actions 435,000 lbs.

Pollution Load after Recent Nutrient Reduction Actions\* 8.17M

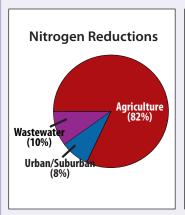
Reduction at Milestone Rate of Progress 470,000 lbs.

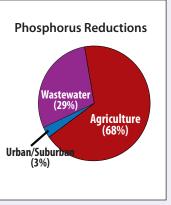
Pollution Load after Milestone Rate of Progress

Increase in Rate of Progress

M = Millions of Pounds of Phosphorus

# **Pollution Reductions by Source**





# **Funding During Milestone Period**

| TOTAL   | \$1,195,200,000 |
|---|-----------------|
| <b>Grant Funding</b>  | \$12M           |
| Virginia Clean Water Pollution<br>Control Revolving Loan Fund | \$456M          |
| Water Quality Improvement Fu<br>Point Source Program          | nding<br>\$627M |
| Virginia Agricultural BMP Tax C<br>Incentives                 | redit<br>\$1.2M |
| Water Quality Improvement Fu<br>Nonpoint Source Program       | nding<br>\$35M  |
| <b>Natural Resources Commitmen</b>                            | nt Fund \$26M   |
| Farm Bill   | \$38M           |
|   |                 |

8.13M

52%

<sup>\*</sup> Based on the current rate of progress, Virginia will fall 990,000 pounds short of its milestone to reduce 3.39 million pounds of nitrogen. To address this shortfall, Virginia will explore additional pollution reduction options (see back).

<sup>\*</sup> Based on the current rate of progress, Virginia will fall 35,000 pounds short of its milestone to reduce 470,000 pounds of phosphorus. To address this shortfall, Virginia will explore additional pollution reduction options (see back).

<sup>\*\*</sup> Nitrogen and phosphorus reductions are based on Phase 4.3 Watershed Model data for agricultural, urban/suburban and air reductions and monitored data for wastewater reductions.

### **Recent Nutrient Reduction Actions**

Significant funding and programs recently established over the last several years are <u>in place</u> to reduce 2.4 million pounds of nitrogen and 435,000 pounds of phosphorus by 2011.

#### These actions include:

- 1. \$61 million in funding for agricultural conservation practices in the Bay watershed.
- 2. \$1.08 billion in grants and loans for nutrient removal technologies at sewage treatment plant upgrades to meet and maintain pollution caps.
- 3. Agreements with poultry companies to achieve a 30 percent phosphorus reduction in poultry litter.
- 4. Acceleration of landowner participation in the Conservation Reserve and Enhancement Program (CREP).
- 5. Significantly increased compliance with erosion and sediment control requirements.
- 6. Developent of aggressive stormwater control regulations.
- 7. Revision of poultry waste management regulations to address off-site nutrient management.

To meet the 2011 milestone, additional actions will be needed to achieve further nitrogen and phosphorus reductions -- 995,500 pounds and 35,000 pounds, respectively.

## Pollution Reduction Actions by End of 2011

#### **Agriculture Urban/Suburban** Cover Crops 119,000 acres/year **Stormwater Management BMPs** 49,000 acres Small Grain Commodities (harvestable) 38,000 acres/year **Erosion and Sediment Control** 61,000 acres Agricultural Nutrient Management 133,000 acres 258,000 new acres Additional Urban Nutrient Management Conservation Tillage (NRCS) 47,500 acres/year 806 systems Septic System BMPs Continuous No-Till (State Cost-Share) 81,000 acres Wastewater **Animal Waste Management Systems** 241 systems Runoff Control AWMS 32 systems 233,000 Pounds Nitrogen Reduced 89,500 acres Off-stream Watering with Fencing 126,000 Pounds Phosphorus Reduced **Forest Buffers** 10,000 acres **Grass Buffers** 2,000 acres **Wetland Restoration** 36 acres Retirement of Highly Erodible Land 19,000 acres Reforestation 12,500 acres Agricultural Stream Restoration 13,000 linear feet

## **Additional Reduction Options Needed to Meet Milestone Commitment**

Specific actions to achieve additional nutrient pollution reductions will be a priority of Governor Kaine as he develops his biennial budget and legislative agenda. Further details will be available in late 2009.

Additional options for consideration will include funding, policies or programs designed to further encourage pollution reductions from agricultural lands, developed lands and air sources.

Virginia's five priority agricultural conservation practices have been, and will continue to be, a focus for additional nutrient pollution reductions.

- Nutrient Management Planning
- Cover Crops
- Conservation Tillage
- Riparian Buffers
- Livestock Exclusion